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42	BOM

C

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B

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A

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IH55E-MHT REV 6.1

CPU:

Intel Lynnfield/Havendale processors in LGA1156 Package

System Chipset:

PCH(Ibex Peak)

Main Memory:

Dual Channel/DDR-III*4(Max 16GB)

Onboard Device:

Clock Generator:RTM885N-926

Super I/O:ITE8721

LAN:Realtek 8111DL

HD Codec:ALC662S

IDE Host controller:JMB368

Expansion Slots:

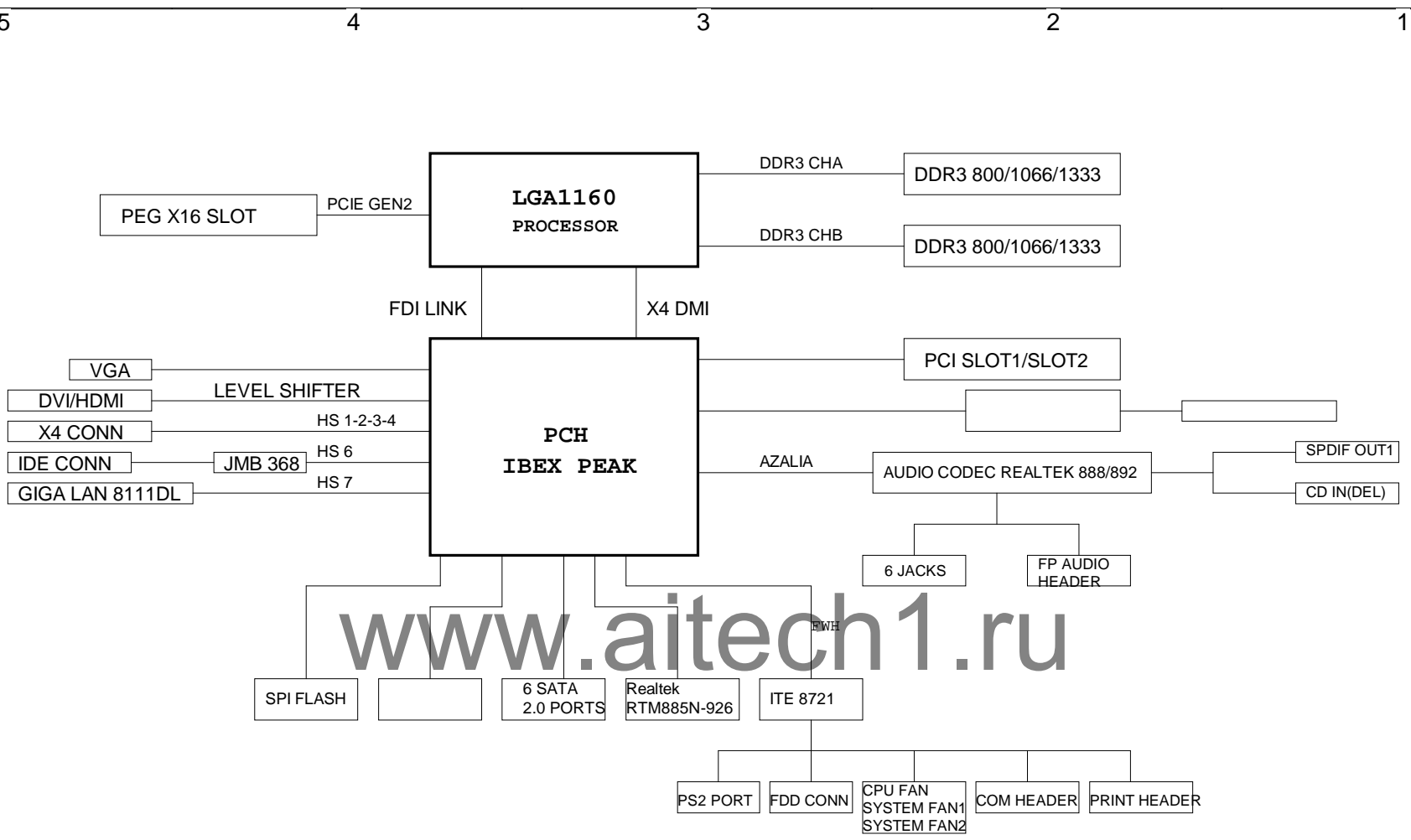
PCI EXPRESS 16X SLOT*1

PCI EXPRESS 4X SLOT*1


PCI SLOT*2

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Title COVER			
Size Custom	Document Number IH55E-AHT		Rev 6.1
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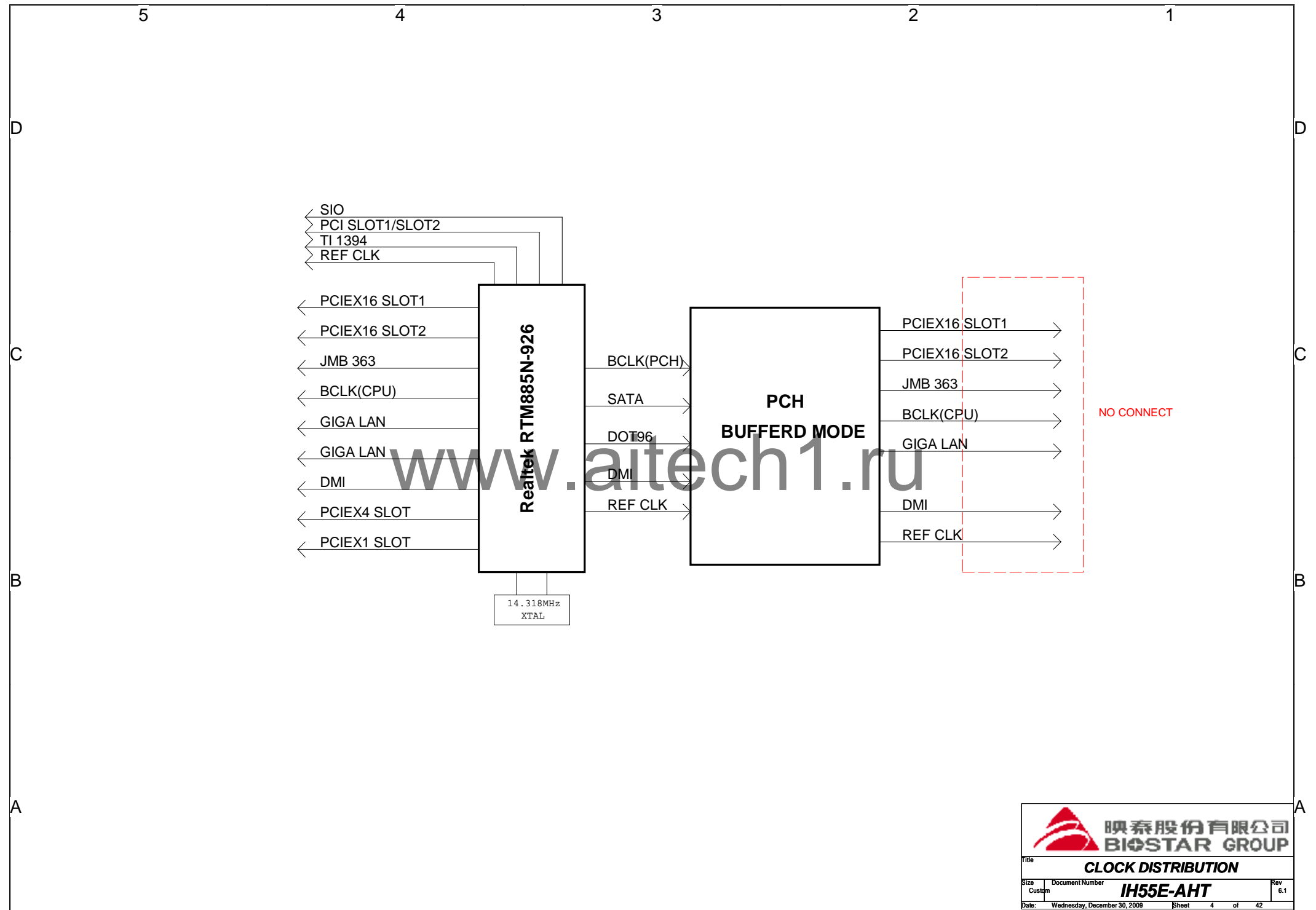
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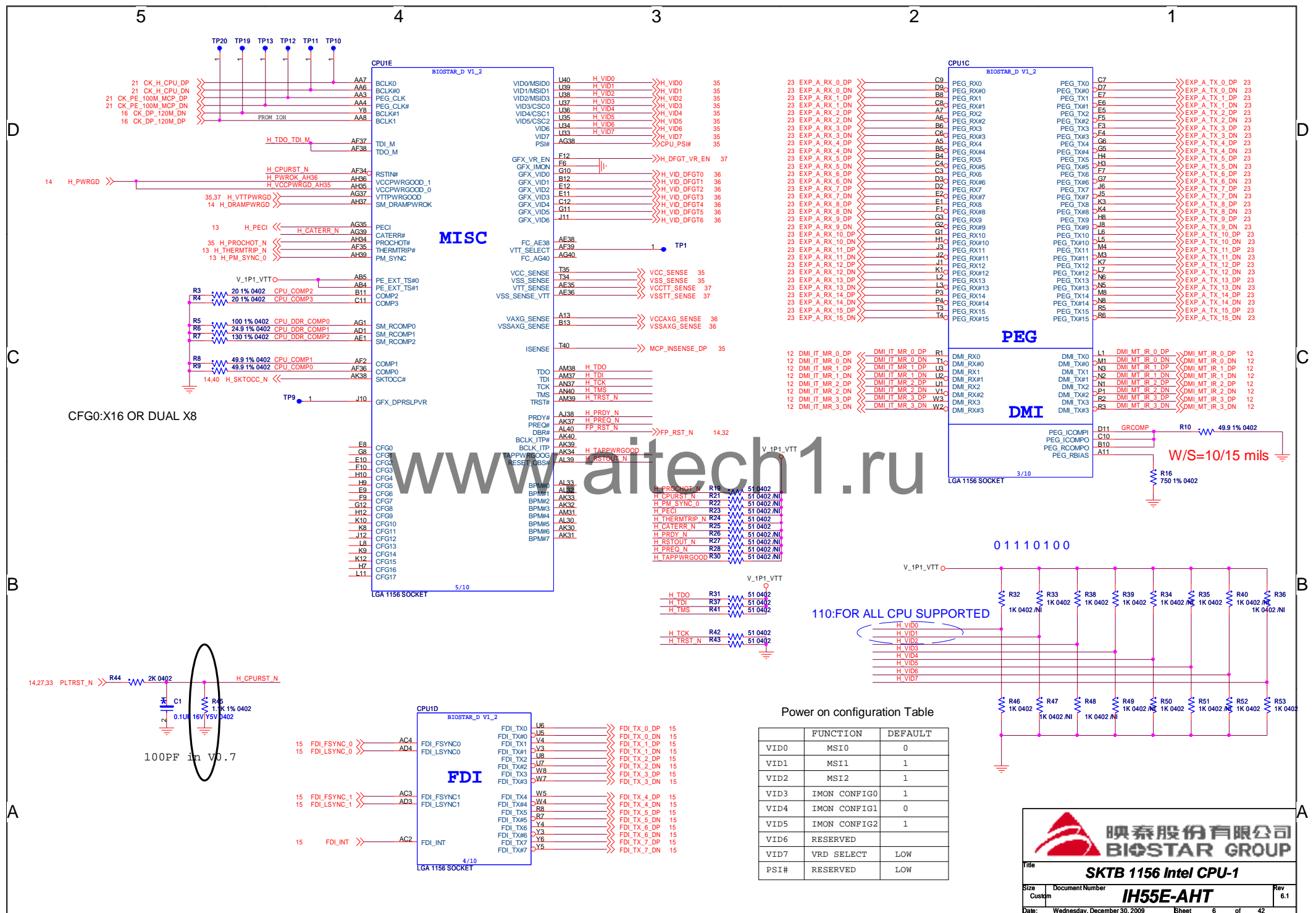
BIOSTAR GROUP

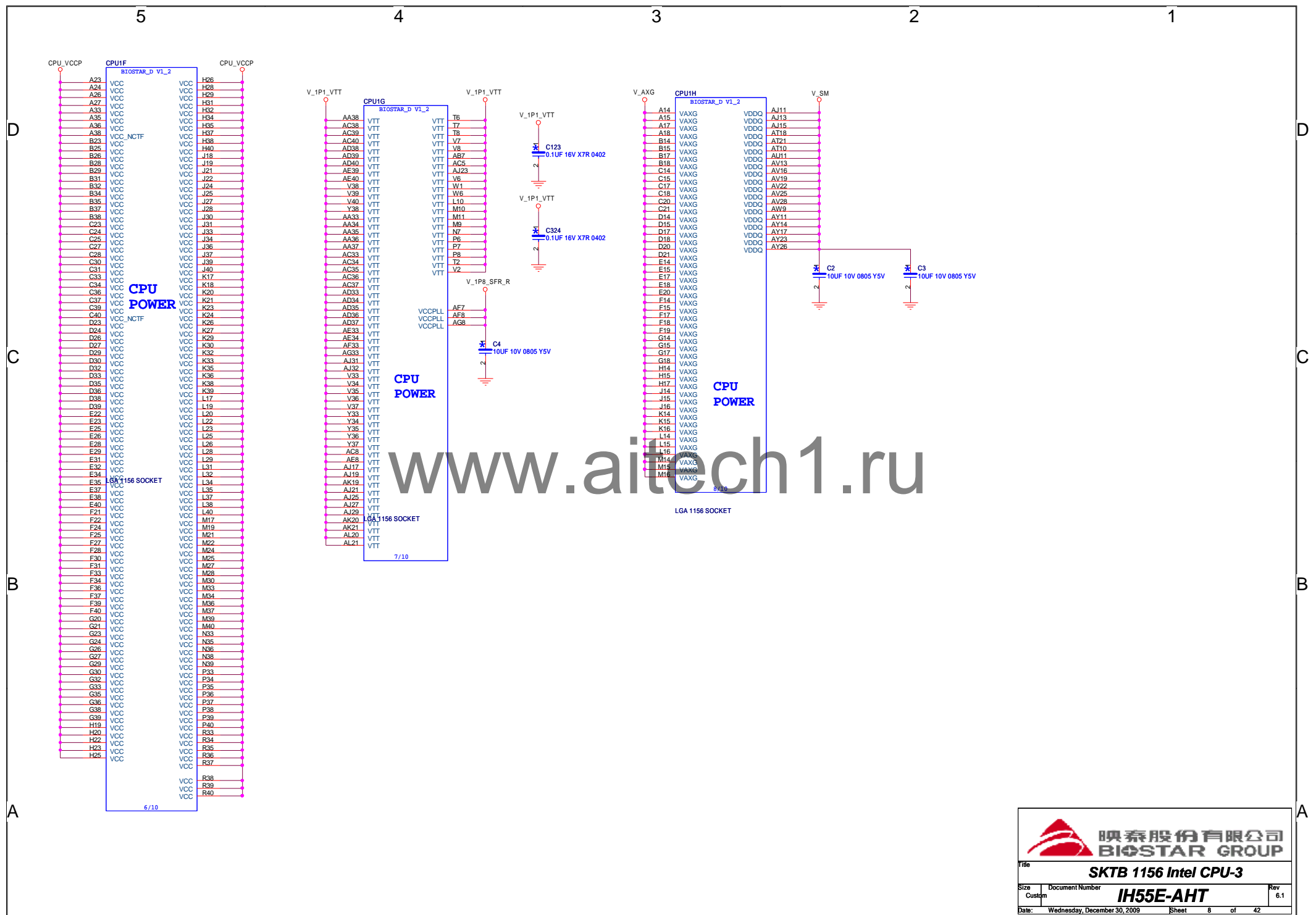
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Title		REVISION HISTORY	
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BIOSSTAR GROUP

File			SKTB 1156 Intel CPU-3		
Size	Custom	Document Number	IH55E-AHT		
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			Rev 6.1		

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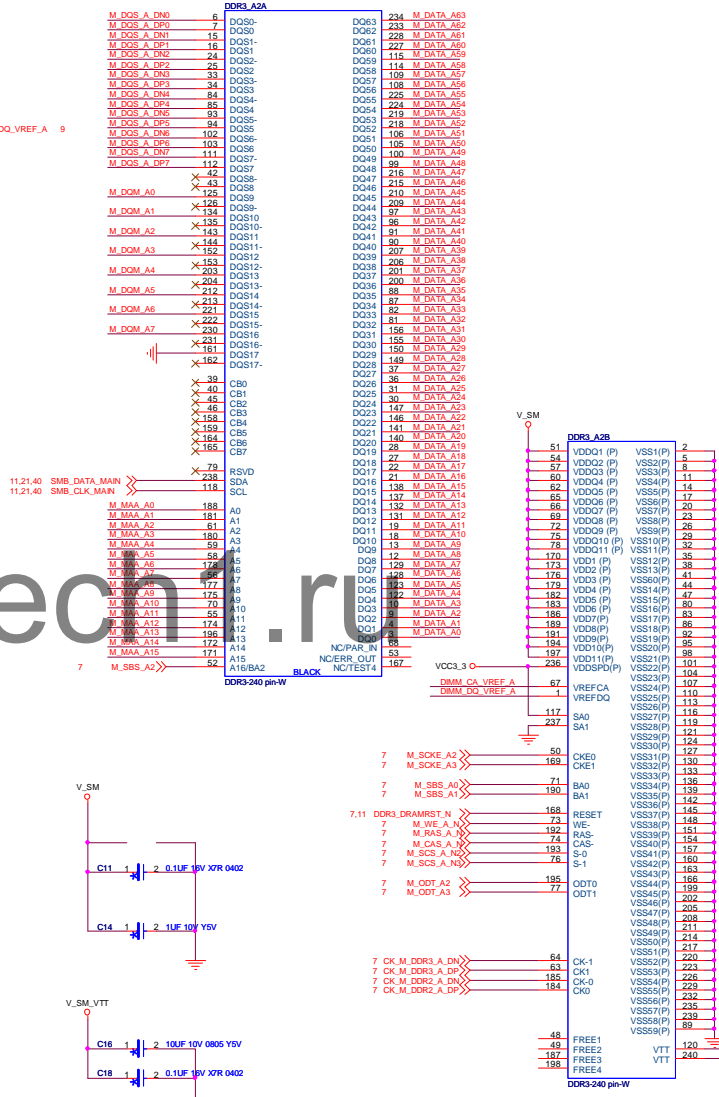
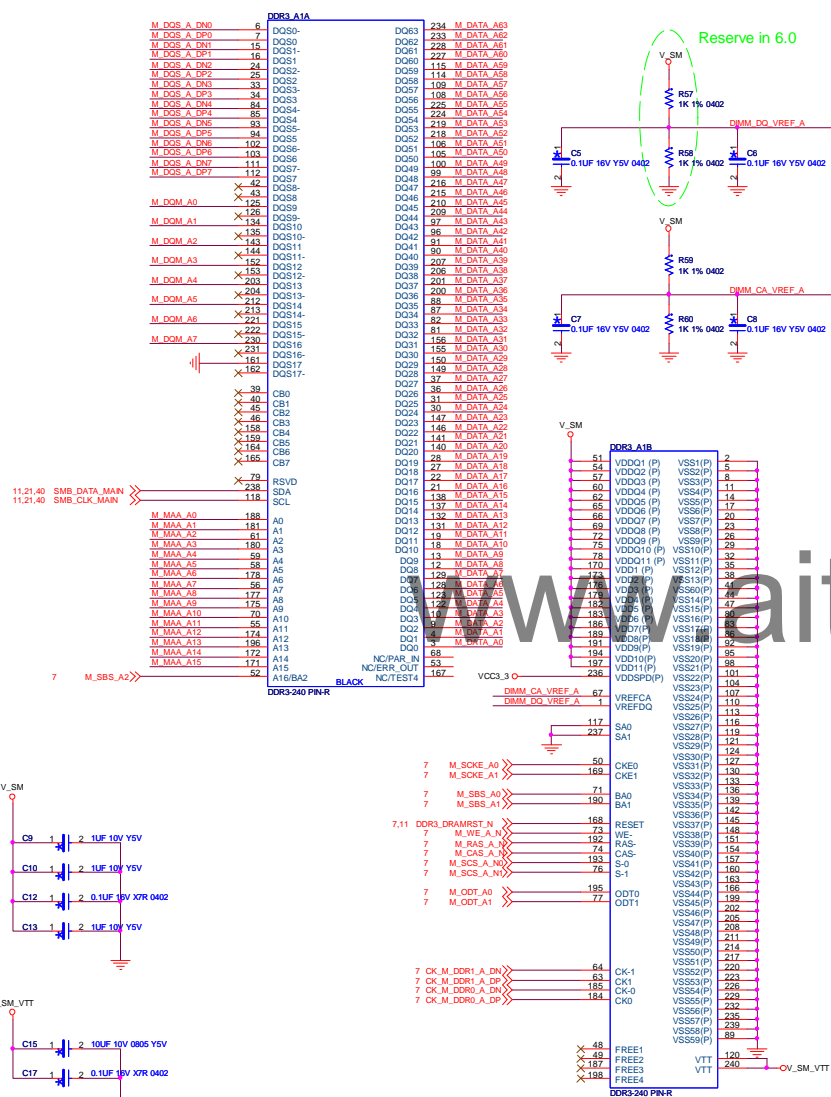
4

3

2

1

7 M_DATA_A[0..63] M_DATA_A[0..63]
 7 M_DATA_A[0..15] M_DATA_A[0..15]
 7 M_DATA_A[0..7] M_DATA_A[0..7]
 7 M_DATA_A[0..7] M_DATA_A[0..7]
 7 M_DATA_A[0..7] M_DATA_A[0..7]
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1



FOR SOP ENABLE AND FLASH
STUFF FOR RECOVERY USAGE ONLY

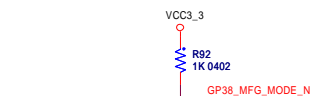
CONFIG / RECOVERY JUMPER

RECOVER/CONFIGURE HEADER	MODE
JUMPER ON 1-2	NORMAL (DEFAULT)
JUMPER ON 2-3	CONFIGURE
JUMPER REMOVED	RECOVERY

CONFIGURE = SAFE MODE

if use PCH PWM controller,
SST should connect to sensor(dual sensor)

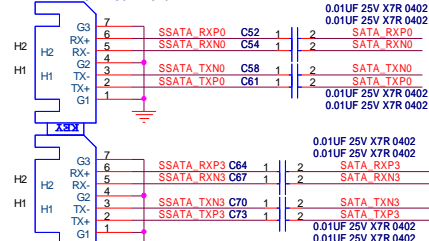
PCH_CONFIG_JUMPER



CONFIGURE = SAFE MODE

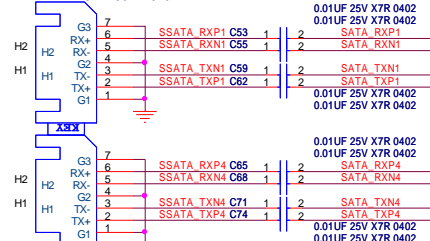
SATA1

SATA CONNECTOR-R



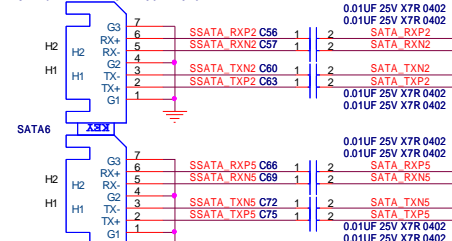
SATA2

SATA CONNECTOR-R



SATA3

SATA CONNECTOR-R



A

SATA4

SATA CONNECTOR-R

SATA5

SATA CONNECTOR-R

PCH1-3

BIOSTAR-D VER:1.0

AK35 TP18
AN36 TP19
AU39 TP20

PCH MEPWROK_R

MEPWROK

AL33

BA12

AR12

AW12

AY13

AW11

AL14

AV11

AY11

AN31

SST

PCH_CONFIG_JUMPER

AN41

AM38

AL39

AG38

SCLOCK/GPIO22

CLKIN_SATA_NICKSSCD

SLOAD/GPIO38

CLKIN_SATA_PCKSSCD_P

SDATAOUT0/GPIO39

SDATAOUT1/GPIO48

SATALEDN

SATAICOMP1

SATAICOMP0

SATA0GP/GPIO21

SATA1GP/GPIO19

SATA2GP/GPIO36

SATA3GP/GPIO37

SATA4GP/GPIO16

SATA5GP/GPIO49

TP8

A20GATE

INIT3_3V

RCINP

SERIRQ

H_THERMTRIP_P

PECI

PMSYNCH

BEXPEAK-H55

3/10

CPU

HOST

SATA

SATA0RXN

SATA0RXP

SATA0TXN

SATA0TXP

SATA1RXN

SATA1RXP

SATA1TXN

SATA1TXP

SATA2RXN

SATA2RXP

SATA2TXN

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SATA3RXN

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SATA58RXN

SATA58RXP

SATA58TXN

SATA58TXP

SATA59RXN

SATA59RXP

SATA59TXN

SATA59TXP

5 4 3 2 1

PCH1-7

BIOSTAR-D VER:1.0

FDI_RXN0	K30	<<>	FDI_TX_0_DN	6
FDI_RXP0	J30	<<>	FDI_TX_0_DP	6
FDI_RXN1	H30	<<>	FDI_TX_1_DN	6
FDI_RXP1	G30	<<>	FDI_TX_1_DP	6
FDI_RXN2	D31	<<>	FDI_TX_2_DN	6
FDI_RXP2	D32	<<>	FDI_TX_2_DP	6
FDI_RXN3	E31	<<>	FDI_TX_3_DN	6
FDI_RXP3	G31	<<>	FDI_TX_3_DP	6
FDI_RXN4	K31	<<>	FDI_TX_4_DN	6
FDI_RXP4	J31	<<>	FDI_TX_4_DP	6
FDI_RXN5	C30	<<>	FDI_TX_5_DN	6
FDI_RXP5	B31	<<>	FDI_TX_5_DP	6
FDI_RXN6	A33	<<>	FDI_TX_6_DN	6
FDI_RXP6	B32	<<>	FDI_TX_6_DP	6
FDI_RXN7	C33	<<>	FDI_TX_7_DN	6
FDI_RXP7	B34	<<>	FDI_TX_7_DP	6

FDI

FDI_FSYNC0	E34	<<>	FDI_FSYNC_0	6
FDI_LSYNC0	C35	<<>	FDI_LSYNC_0	6
FDI_FSYNC1	E36	<<>	FDI_FSYNC_1	6
FDI_LSYNC1	D35	<<>	FDI_LSYNC_1	6

FDI_INT	B36	<<>	FDI_INT	6
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IBEXPEAK-H55

3.3V TOLERANT

PCH1-6

BIOSTAR-D VER:1.0

J1	DDPB_HPD	DDPB_HPD
H2	DDPC_HPD	DDPC_HPD
M1	CRT_HSYNC	CRT_HSYNC
L2	CRT_VSYNC	CRT_VSYNC
L9	DDPB_AUXP	DDPB_AUXP
L10	DDPC_AUXN	DDPC_AUXN
K4	DDPD_AUXP	DDPD_AUXP
L4	DDPD_AUXN	DDPD_AUXN
K10	DDPB_0P	DDPB_0P
J8	DDPB_0N	DDPB_0N
K11	DDPB_1P	DDPB_1P
H6	DDPB_1N	DDPB_1N
H11	DDPB_2P	DDPB_2P
G4	DDPB_2N	DDPB_2N
H4	DDPB_3P	DDPB_3P
E3	DDPB_3N	DDPB_3N
F4	DDPC_0P	DDPC_0P
F2	DDPC_1P	DDPC_1P
G3	DDPC_1N	DDPC_1N
B4	DDPC_2P	DDPC_2P
C4	DDPC_2N	DDPC_2N
D2	DDPC_3P	DDPC_3P
C5	DDPC_3N	DDPC_3N
D6	DDPD_0P	DDPD_0P
B6	DDPD_0N	DDPD_0N
D7	DDPD_1P	DDPD_1P
F8	DDPD_1N	DDPD_1N
G8	DDPD_2P	DDPD_2P
F9	DDPD_2N	DDPD_2N
G9	DDPD_3P	DDPD_3P
G9	DDPD_3N	DDPD_3N

M3	SDVO_INTN	SDVO_INTN
N4	SDVO_INTN	SDVO_INTN
N2	SDVO_STALLP	SDVO_STALLP
P3	SDVO_STALLN	SDVO_STALLN
L6	SDVO_TVCLKINP	SDVO_TVCLKINP
L7	SDVO_TVCLKINN	SDVO_TVCLKINN

IBEXPEAK-H55

NEAR PCH

AD4	R180	33 0402	>>>	VGA_HSYNC	20
AD3	R181	33 0402	>>>	VGA_VSYNC	20
AC1			>>>	VGA_RED	20
AC3			>>>	VGA_GREEN	20
AB2			>>>	VGA_BLUE	20
AG4			>>>	VGA_PCH_DDCSDA	20
AG2			>>>	VGA_PCH_DDCSCL	20
AE2	VGA_DACREFSET	R183	1K 1% 0402		
P12					
P13					
T13					
T12					
AB10			>>>	DDPC_CTRL_CLK	22
AB11			>>>	DDPC_CTRL_DATA	22
AB7					
AB9					
AB13			>>>	DDPB_CTRL_CLK	22
AB12			>>>	DDPB_CTRL_DATA	22

PCH1-5


BIOSTAR-D VER:1.0

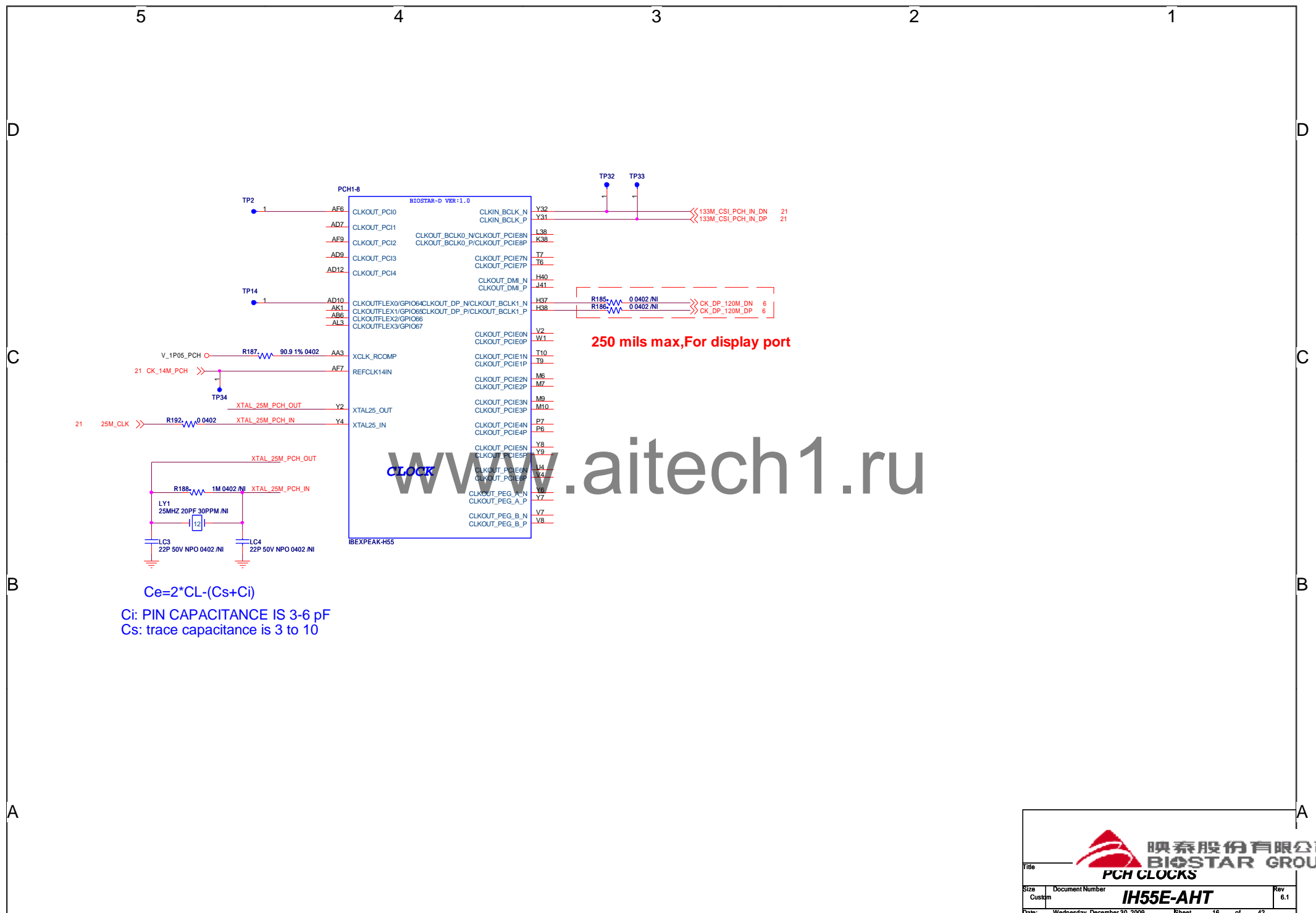
J34	NV_ALE	NV_ALE	T33
L35	NV_CLE	NV_CLE	P35
M32	NV_RE#	NV_RE#	T31
J36	NV_WR#0_RE#	NV_WR#0_RE#	P33
J35	NV_WR#1_RE#	NV_WR#1_RE#	M35
M31	NV_WE#_CK0	NV_WE#_CK0	L33
F38	NV_WE#_CK1	NV_WE#_CK1	M36
			M34
			M30
			F36
			H33
			E37
			E39
			G33
			D40
			F33
			H36
			H35
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			E41
			P36
			F40
			L36

NVRAM


IBEXPEAK-H55

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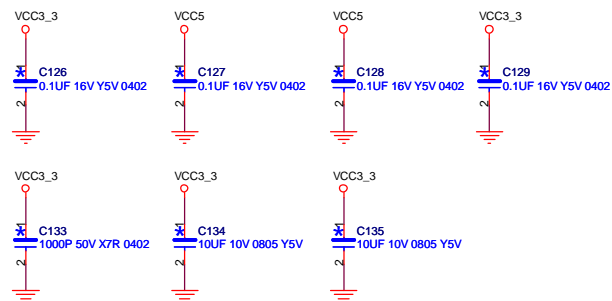
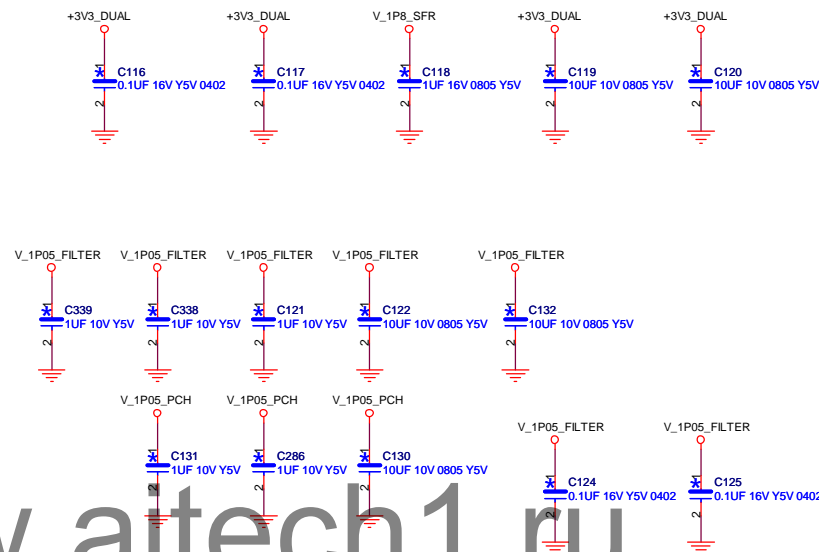
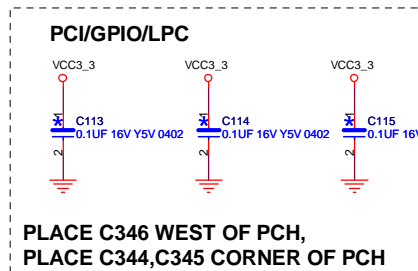
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Size Custom	Document Number IH55E-AHT		Rev 6.1
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$C_e = 2 * C_L - (C_s + C_i)$
 Ci: PIN CAPACITANCE IS 3-6 pF
 Cs: trace capacitance is 3 to 10

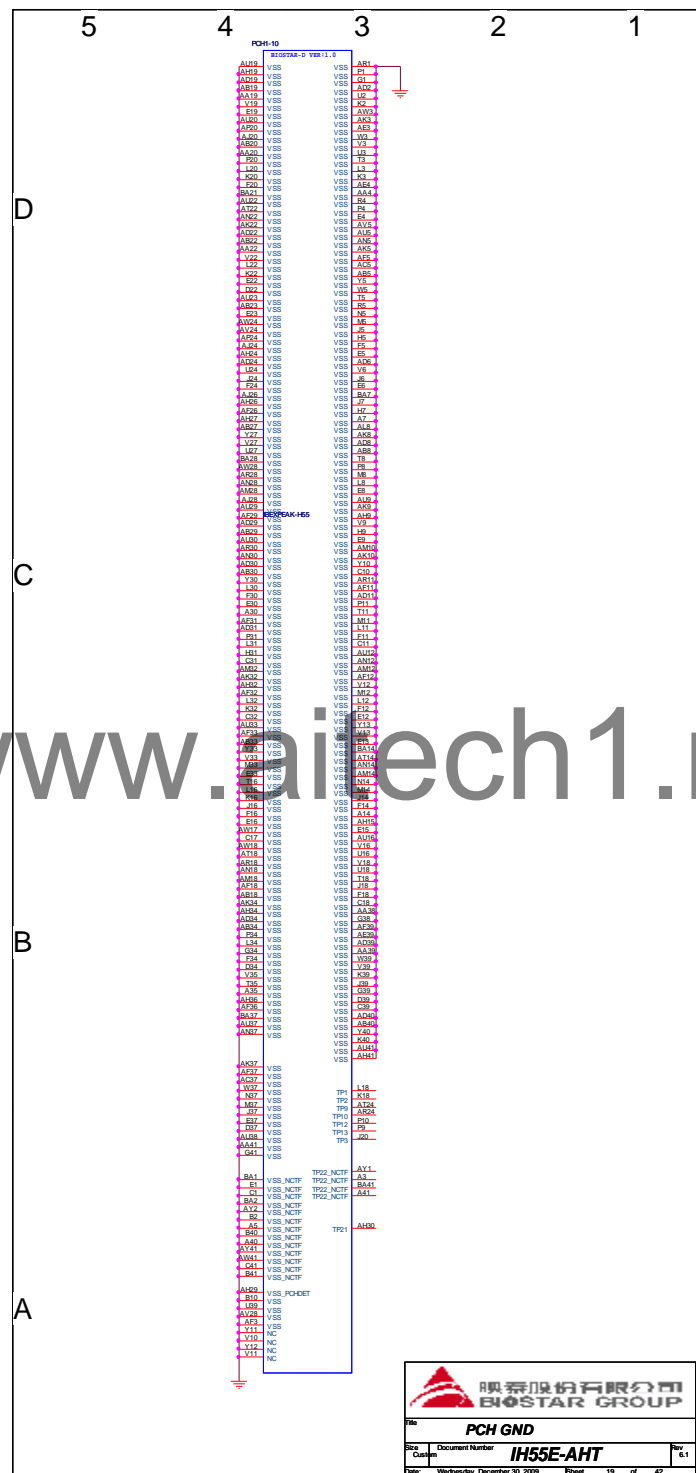

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BIOSSTAR GROUP

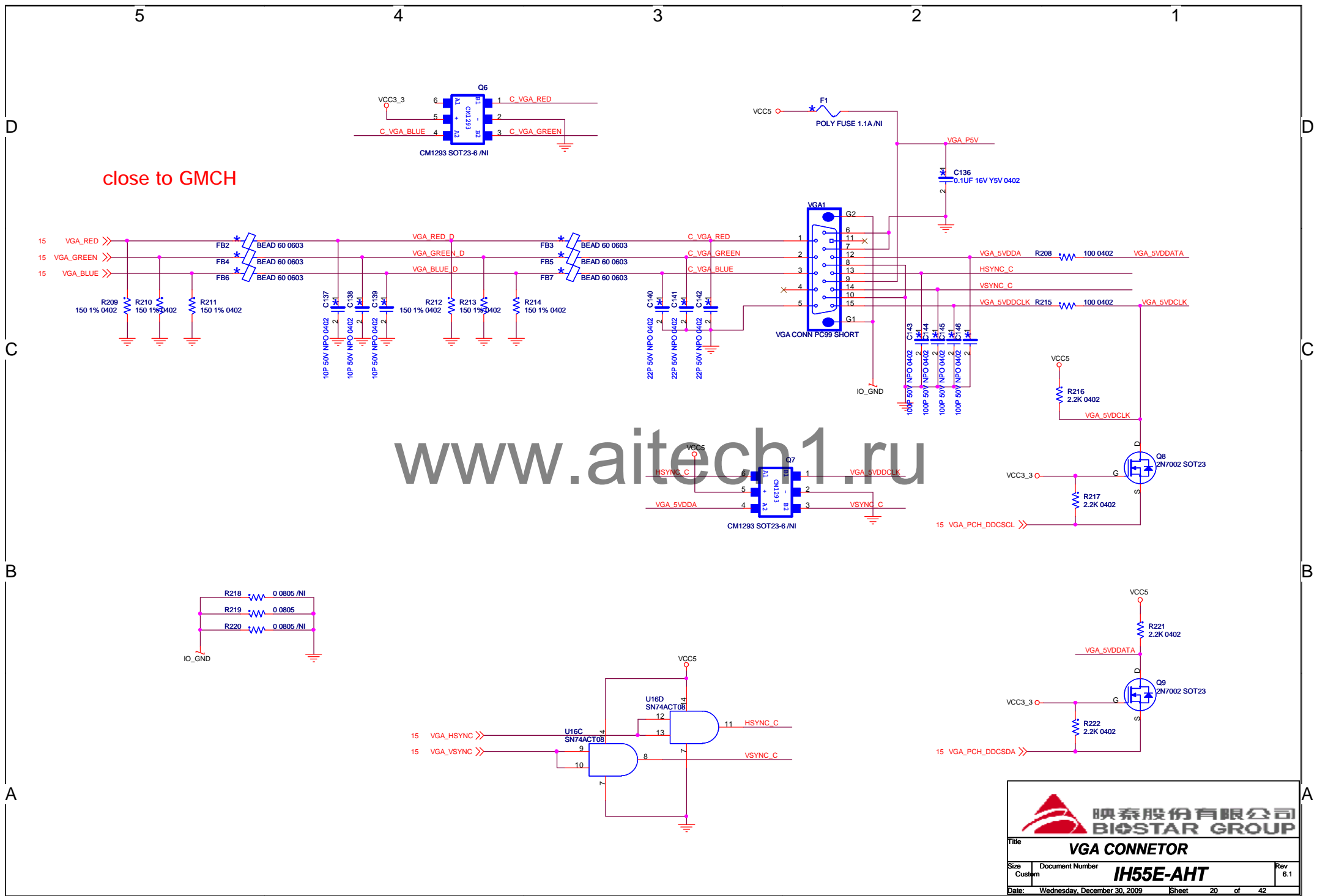
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Custom			Rev 6.1
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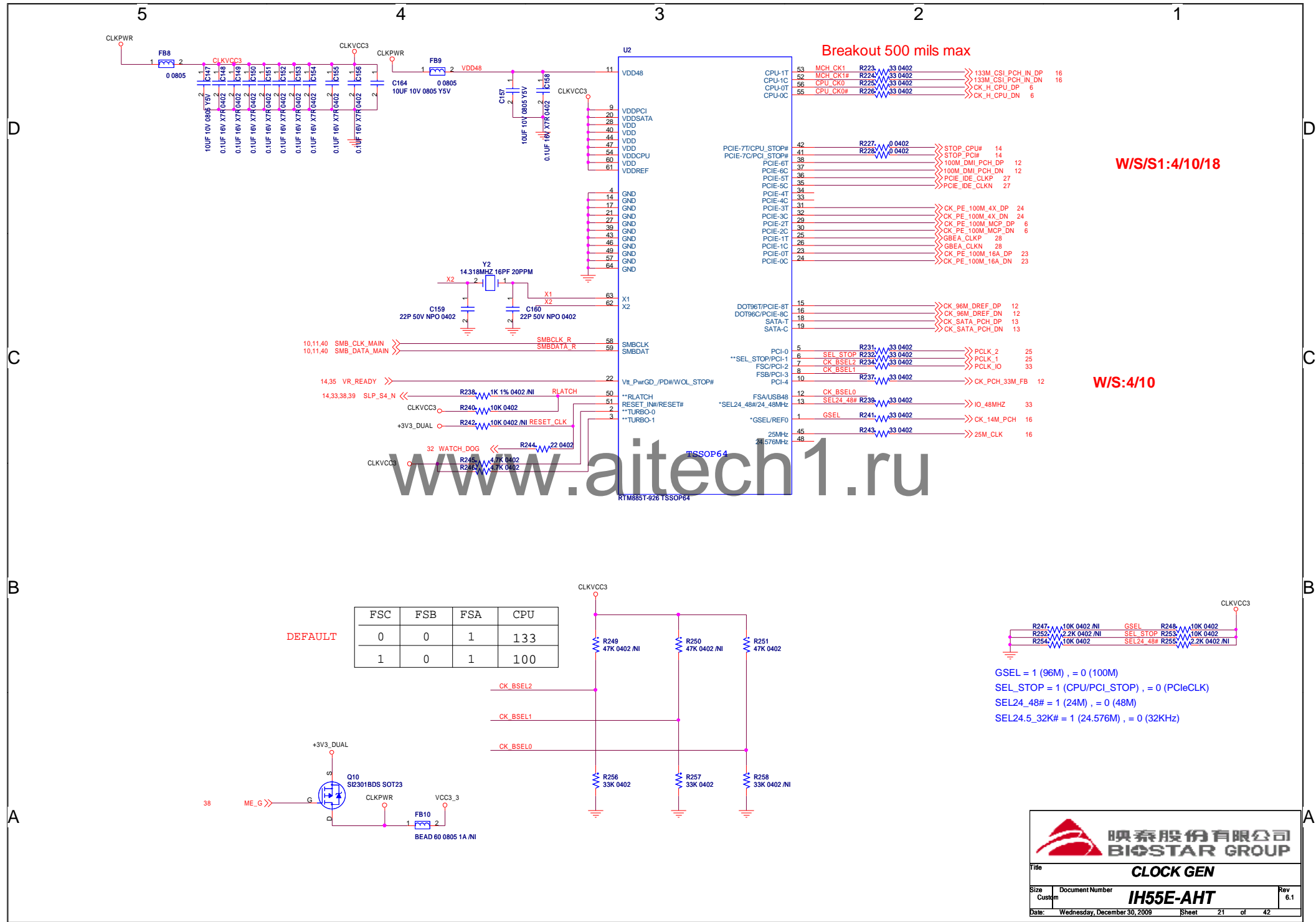


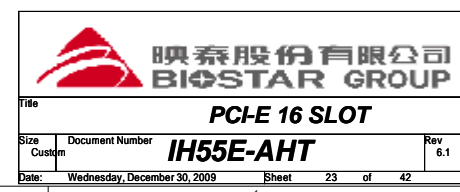
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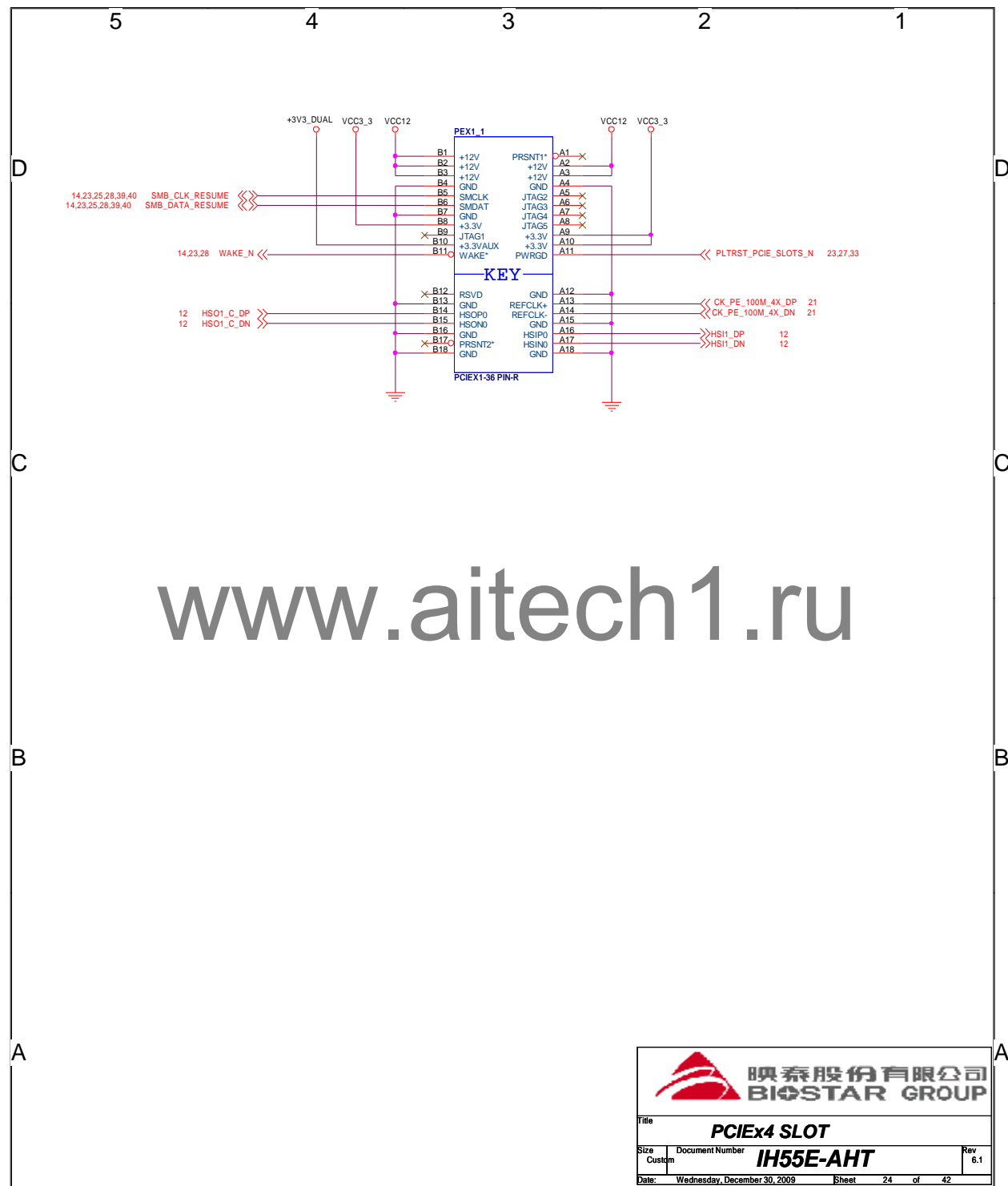
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Size Custom	Document Number IH55E-AHT		Rev 6.1
Date: Wednesday, December 30, 2009 Sheet 18 of 42			






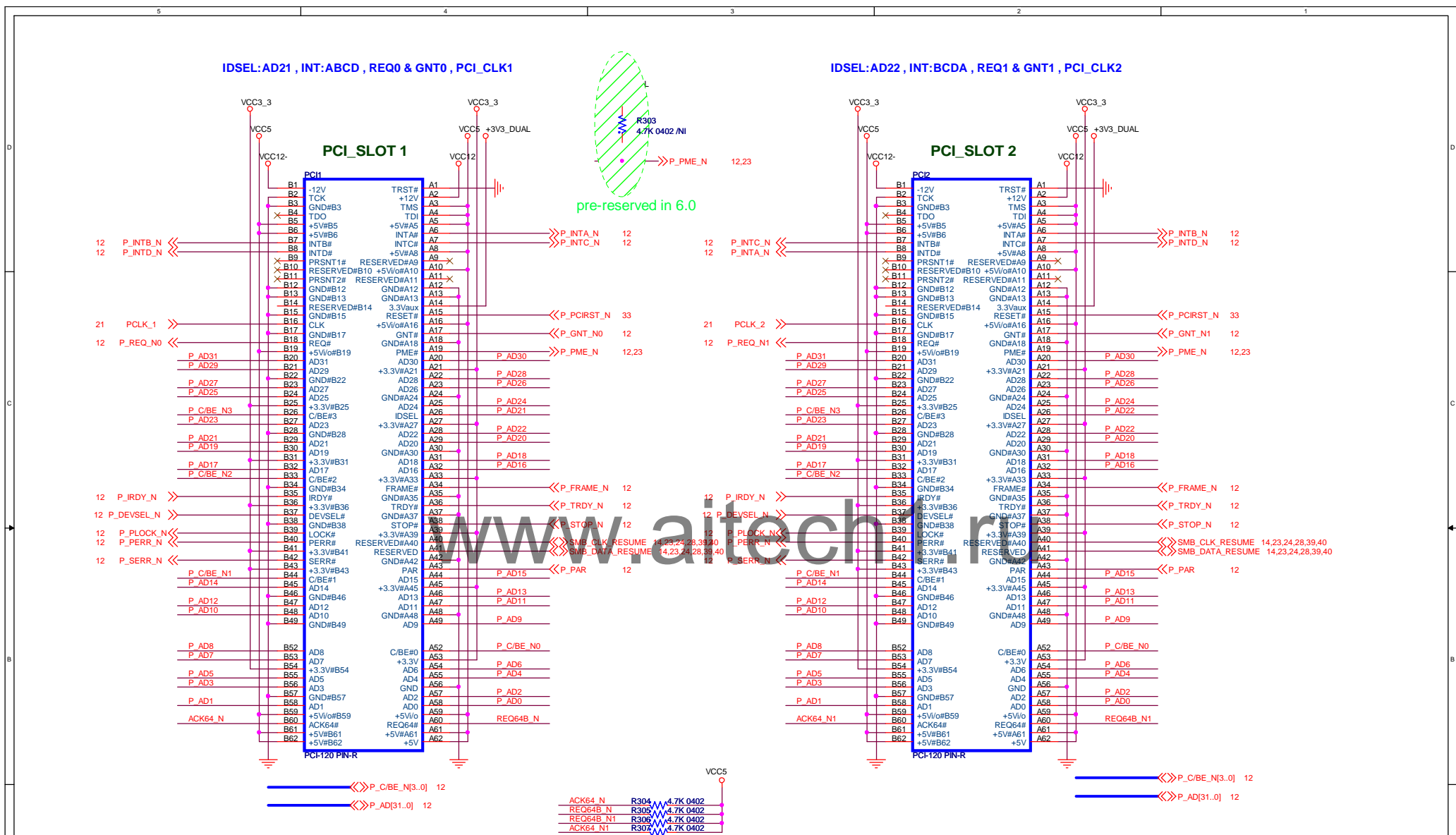







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Size Custom	Document Number IH55E-AHT		Rev 6.1
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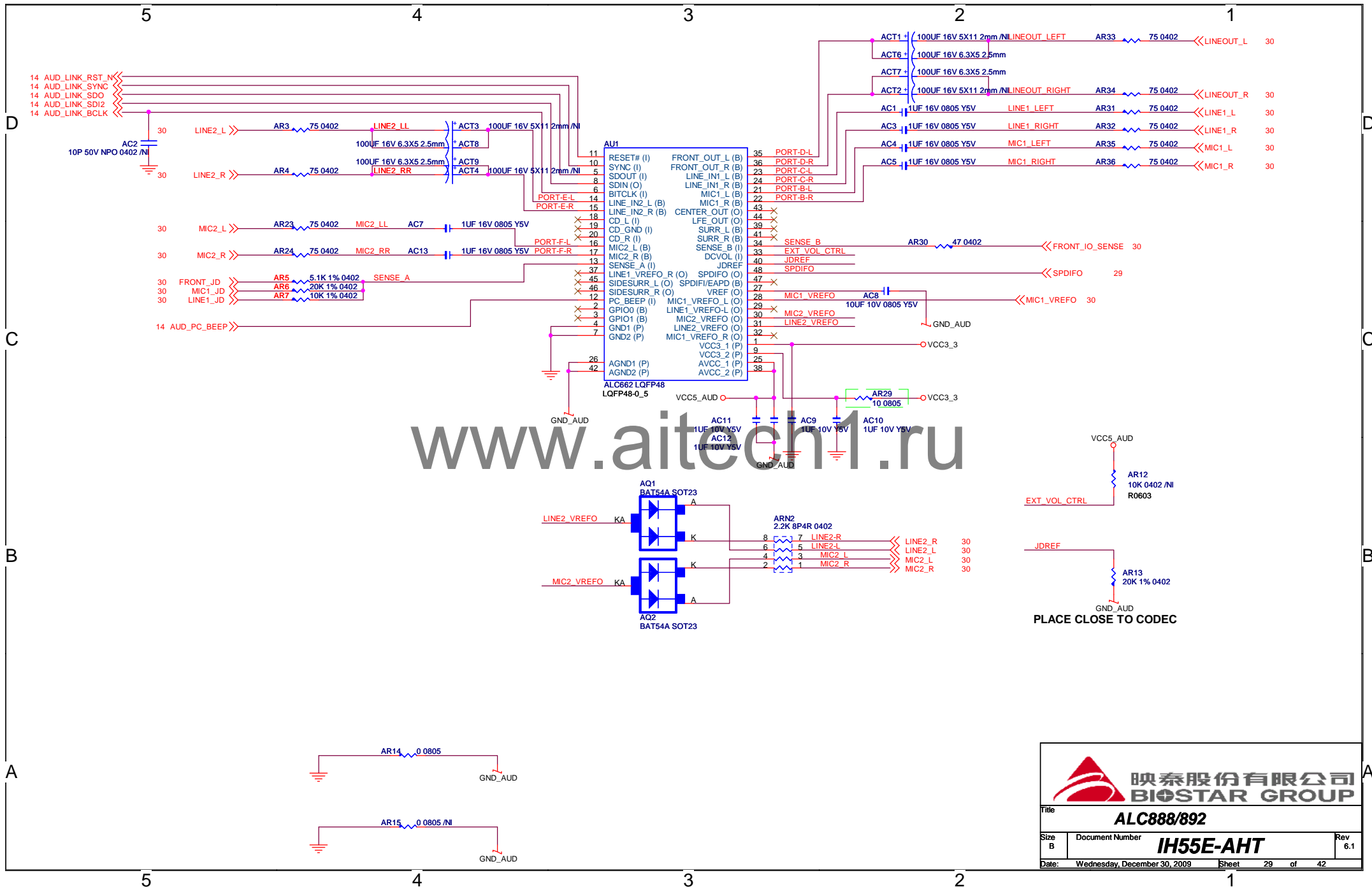


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Title			PCI SLOT
Size	Document Number	IH55E-AHT	
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Title RESERVED FOR 1394			
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BIOSTAR GROUP

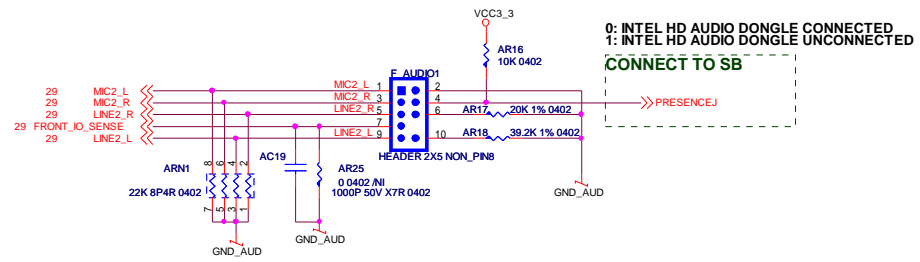
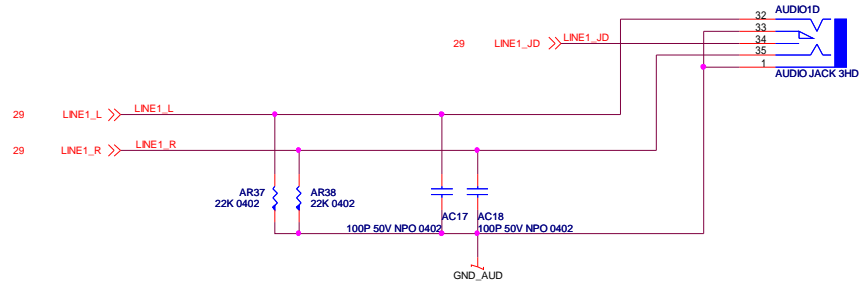
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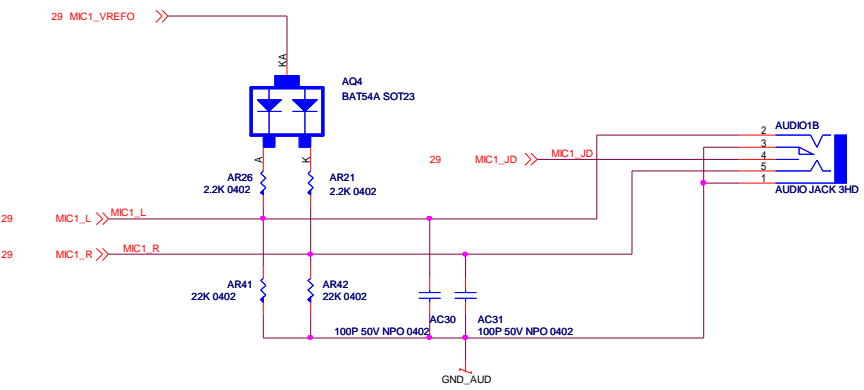
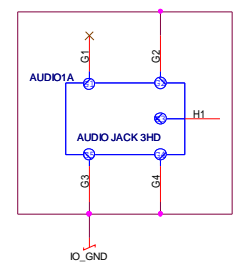
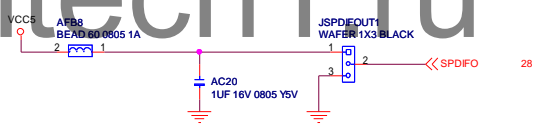
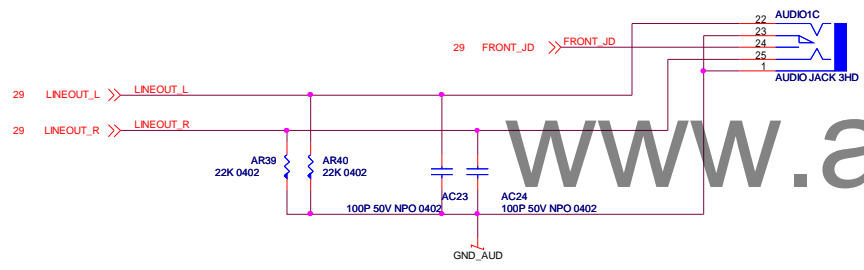
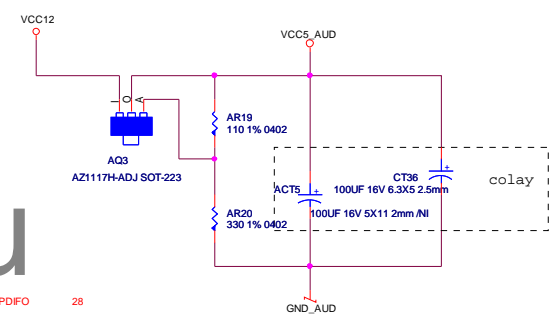
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Rear Panel Onboard Analog I/O



AUDIO ANALOG POWER



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Title
AUDIO CONNECTOR

Size
Custom

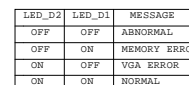
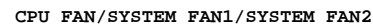
Document Number
IH55E-AHT

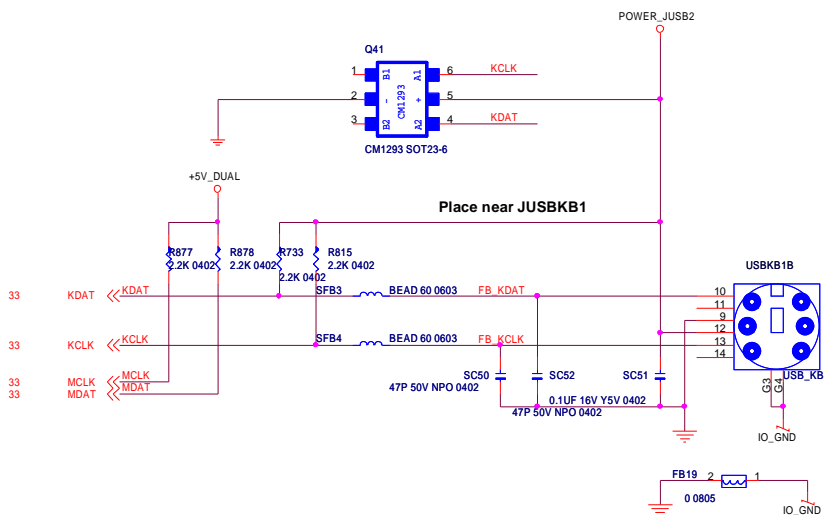
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5 4 3 2 1

POWER CONNECTOR





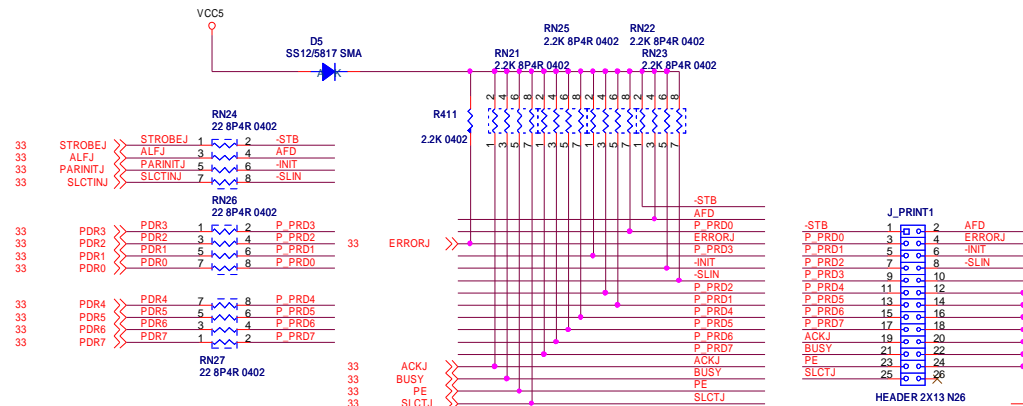
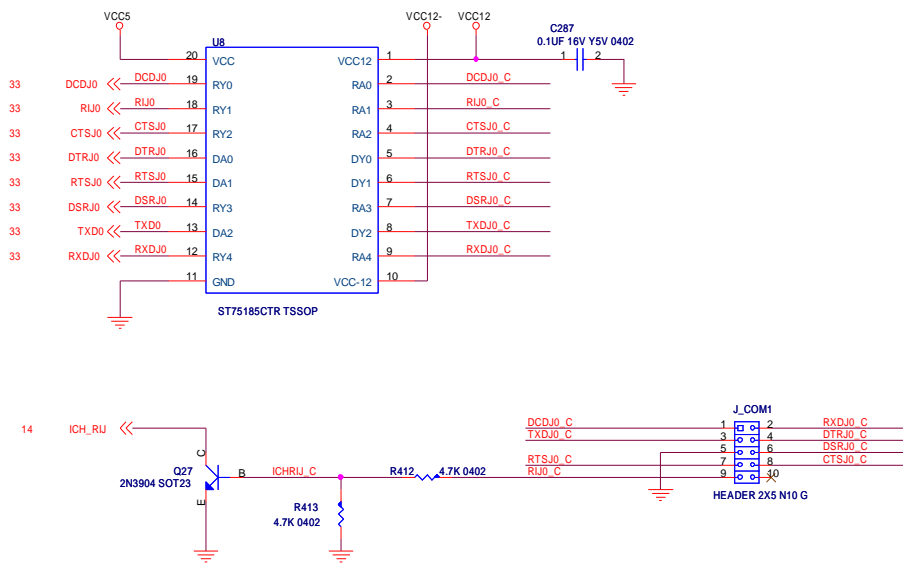
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PS2 PORT

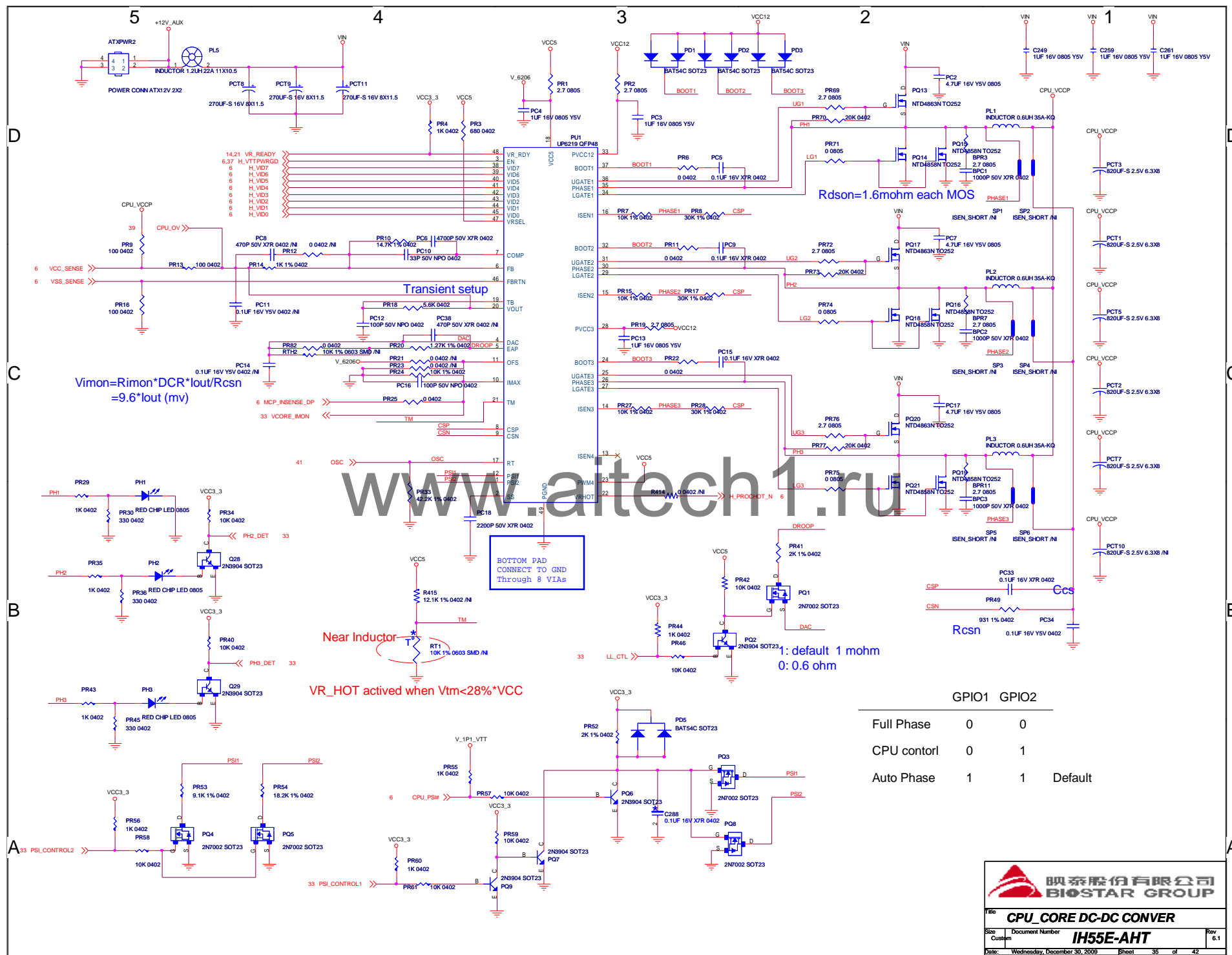
FLOPPY CONNECTOR

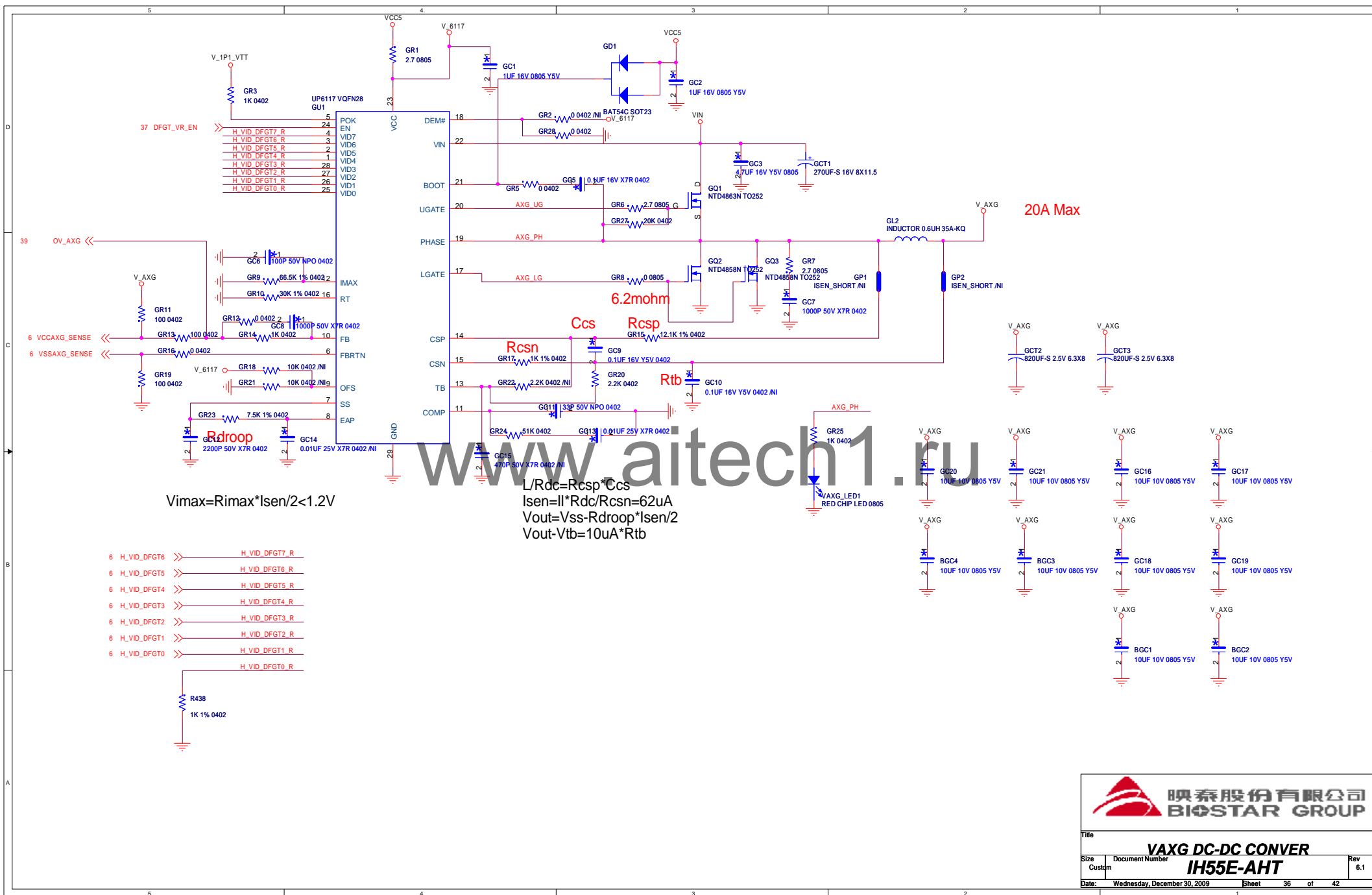
COM HEADER

PRINT HEADER



FDD / PS2 CONN			
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+3V3_DUAL

R510 1K 0402

R511 1K 0402

SMB_CLK_RESUME 14,23,24,25,28,39

SMB_DATA_RESUME 14,23,24,25,28,39

SMB_CLK_RESUME 14,23,24,25,28,39

SMB_CLK_MAIN 10,11,21

SMB_DATA_RESUME 14,23,24,25,28,39

SMB_DATA_MAIN 10,11,21

6,14 H_SKTOCC_N

R514 10K 0402

Q66 2N3904 SOT23

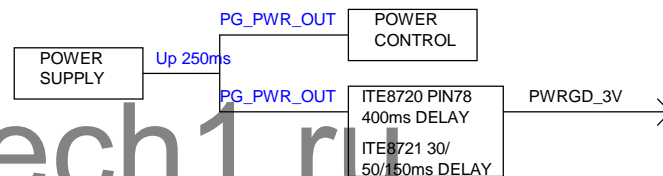
PWRGD_3V 13,14,33

POWER ON SEQUENCE FOR 8720/8721 COLAY MAP

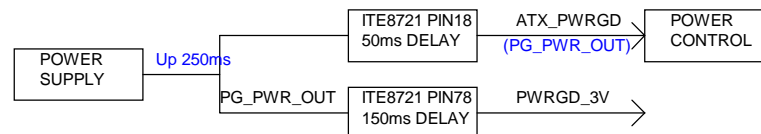
SOLUTION1



SOLUTION2



SOLUTION3
DEFAULT



FALL TIME:40mv/us

C325 100P 50V NPO 0402

PWRGD_3V 13,14,33

R520 0 0402 /NI

32,33,38,39 ATX_PWRGD

PWRGD_3V 13,14,33

 映泰股份有限公司
BIOSAR GROUP

Title **RESET BUFFER AND SEQUENCE**

Size Custom Document Number **IH55E-AHT** Rev 6.1

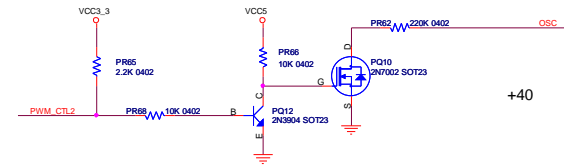
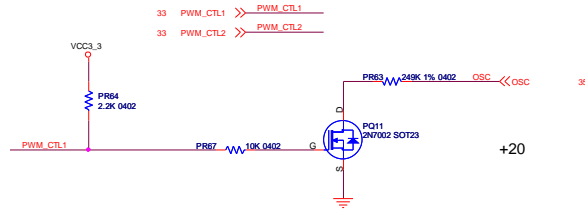
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PWM Frequency Control

6206:Fsw=1000/Rosc(Kohm)
=200kHz
6219:Fsw=300*(24K/Rosc)^{0.92}
=200kHz

PWM_CTL1	PWM_CTL2	FREQUENCY
0	0	220K
0	1	180K
1	0	240K
1	1	200K

default



Turbo Control

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